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From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>
Errors-To: Ham-Ant-Errors@UCSD.Edu
Reply-To: Ham-Ant@UCSD.Edu
Precedence: Bulk
Subject: Ham-Ant Digest V93 #118
To: Ham-Ant

Ham-Ant Digest Mon, 22 Nov 93 Volume 93 : Issue 118

Today's Topics:

Compact Quad
What is it?

Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>
Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 18 Nov 1993 12:48:02 GMT
From: dog.ee.lbl.gov!agate!howland.reston.ans.net!usc!elroy.jpl.nasa.gov!
news.larc.nasa.gov!arbd@larc.nasa.gov!zawodny@network.ucsd.edu
Subject: Compact Quad
To: ham-ant@ucsd.edu

In article <CGoHIy.4pt@freenet.carleton.ca> aj467@Freenet.carleton.ca (Bill
Macpherson) writes:

>
>I am thinking of building a two element 40 mtr quad.
>I have a space limitation though and am wondering if I can reduce the height
>to about 20 feet by wrapping the full wave loops twice around the frame,
>instead of just once. ie two turns @ 19 ft per side for the reflector and
>two turns of the driven element @ 17 - 18 ft per side for the totals of
>152ft for reflector and 140 ft for driven element. How would this affect
>the F/B and Gain figures?
>

A quick drawing showing the current and voltage maximuma and minimuma
tell me that if you are going to reduce the size by having multiple turn loops
then you will have to go with an odd number of turns. With an even number of

turns it looks to me as though the currents and volatges basically cancel and all you are left with is a magnetic loop. This is not what you are looking for in your quad. There will be other things that you may want to consider before you reduce the size of your quad. First off the "capture area" will be reduced and secondly you will have increased inductive reactance to deal with.

--

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NASA Langley Research Center
MS-475, Hampton VA, 23681-0001

Date: Fri, 19 Nov 1993 16:28:19 GMT
From: olivea!pagesat!herald.indirect.com!kg7bk@uunet.uu.net
Subject: What is it?
To: ham-ant@ucsd.edu

johnz@utxvms.cc.utexas.edu wrote:
: it is a vertical about 19 feet high with three 8 ft counterpoises at the

The 8 ft counterpoises are 96 inches which implies that this antenna is probably a CB (27MHz) antenna but will probably work just fine on 10m. It's vertical length is close to one half wavelength on 27MHz which gives a lower angle of radiation than a 109 inch quarter wave vertical.

73, Cecil, kg7bk@indirect.com

End of Ham-Ant Digest V93 #118

